



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|----------------------|------------------|
| 09/735,249 | 12/11/2000 | Charles R. Cahn | SIRF-56139(22-US-C1) | 6416 |

24201 7590 07/11/2003

FULWIDER PATTON LEE & UTECHT, LLP
HOWARD HUGHES CENTER
6060 CENTER DRIVE
TENTH FLOOR
LOS ANGELES, CA 90045

EXAMINER

HA, DAC V

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2634

DATE MAILED: 07/11/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Office Action Summary

Application No.

09/735,249

Applicant(s)

CAHN ET AL.

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-33,36,37,39-45,48,51-57,60,63 and 64 is/are rejected.
- 7) ☒ Claim(s) 34,35,38,46,47,49,50,58,59,61,62 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 30-33, 36, 37, 39-45, 48, 51-57, 60, 63, 64** are rejected under 35 U.S.C. 102(b) as being anticipated by Meehan. (US 5,347,536).

Regarding claim 41, Meehan teaches the following claimed subject matter.

“a receiver ... comprising a PN code” (Figure 14, Incoming Signal; Abstract)

“a code generator ... received signal” (Figure 14, element 105)

“an error detector ... and the received signal” (Figure 14, elements 150, 130, 125, 190; Col. 10, lines 6-34)

Regarding claim 53, see claim 41 above. Further, Meehan teaches that the multipath errors are caused by the delay in multipath received signals. The output of element 150 in Figure 14 is pseudo-range error correction signal, which is utilized for correcting the delay of that of the received signal, thus inherently teaches the claimed subject matter “multipath error detector”.

Regarding claim 30, see claim 41 above. Further, the correlation sum of the elements 140, 135, 185 utilized for error correction determination teaches the “relationship between an amplitude”.

Art Unit: 2634

Regarding claim 31, Meehan further teaches the following claimed subject matter.

“power ... correlation products;” (Figure 14, elements 140, 135, 185; Abstract)

“phase ... correlation products;” (Col. 3, lines 37-39; Col. 5, lines 8-29)

“quadrature ... correlation products;” (Figure 2)

Regarding claim 32, Meehan further teaches the following claimed subject matter “determining ... multipath error” in Col. 4, lines 28-45.

Regarding claim 33, Meehan further teaches the following claimed subject matter “wherein ... product” in Col. 3, lines 58-67; Col. 4, lines 10-24, 28-44.

Regarding claim 36, Meehan further teaches the following claimed subject matter “further ... processor” in Figures 13, 14, 15, elements 150 and Figure 15, element 198.

Regarding claim 37, Meehan further teaches the following claimed subject matter “further ... adjusted” in Figures 13, 14, 15, elements 150 and Figure 15, element 198.

Regarding claim 39, Meehan further teaches the following claimed subject matter “further ... multipath signal” in Col. 3, lines 29-36; Col. 3, lines 46-52.

Regarding claim 40, Meehan further teaches the following claimed subject matter “further ... cancellation” in Abstract; Col. 3, line 46 to Col. 4, line 46; Col. 10, line 4-34.

Regarding claim 42, Meehan further teaches the following claimed subject matter “further ... correlation product” in Figure 14, element 150.

Art Unit: 2634

Regarding claim 43, see claim 31 above.

Regarding claim 44, see claim 32 above.

Regarding claim 45, see claim 33 above.

Regarding claim 48, see claim 36 above.

Regarding claims 51, 52, see claims 39, 40 above, respectively.

Regarding claim 54, see claim 42 above.

Regarding claim 55, see claim 31 above.

Regarding claim 64, see claim 40 above.

Regarding claim 60, see claim 48 above.

Regarding claim 56, see claim 32 above.

Regarding claim 57, see claim 33 above.

Regarding claim 63, see claims 39, 40 above.

Allowable Subject Matter

3. Claims 34, 35, 38, 46, 47, 49, 50, 58, 59, 61, 62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2634

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5813 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-5500.

Application/Control Number: 09/735,249
Art Unit: 2634

Page 6

Dac V. Ha
Examiner
Art Unit 2634

DH
July 2, 2003



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600